

CECIL FIELD NAVAL AIR STATION

CECIL FIELD, FLORIDA

Engineering Field Division/Activity: SOUTH DIV

Major Claimant: CINCLANTFLT

Size: 31,366 Acres

Funding to Date: \$21,633,000

Estimated Funding to Complete: \$138,034,000

Base Mission: Provides facilities, services and material support for the operation and maintenance of Naval weapons and aircraft to activities and units of the operating force as designated by the CNO

Contaminants: Heavy metals, halogenated aliphatics, phthalate esters, polynuclear aromatic hydrocarbons

Number of Sites:		Relative Risk Ranking of Sites:		
CERCLA:	18	High:	14	Not Evaluated: 2
RCRA Corrective Action:	1	Medium:	6	Response Complete: 2
RCRA UST:	6	Low:	1	Total Sites: 25
Total Sites:	25			



NPL

BRAC III

EXECUTIVE SUMMARY

Cecil Field Naval Air Station (NAS) is located in Duval county, and partially in Clay County, Florida. Downtown Jacksonville, Florida is approximately 14 miles northeast of the installation's main entrance. The typical air station operations that contributed to the contaminated sites on the facility include: equipment maintenance, fuel and oil storage and disposal, fire training, and target ranges. Groundwater, surface water, and soil contamination resulted from installation operations. Current operations include pollution prevention technologies to prevent further contamination. Cecil Field NAS was placed on the National Priorities List (NPL) primarily due to the discovery of an aquifer contaminated by the organic solvent TCE and the resulting plume. There was also concern about lead contamination at an ordnance disposal/shooting range site.

The area surrounding the station is rural in character and sparsely populated. Jacksonville is the only appreciably sized city in the area. The land is primarily used for forestry and some light agriculture with small communities and homes scattered in. Contaminants have migrated downward to the shallow aquifer. However, no contaminated groundwater has moved off base. Surface water contamination has occurred in numerous ditches and creeks that drain into several larger nearby water bodies, including Lake Fretwell, Rowell Creek, and Sal Taylor Creek.

A Technical Review Committee (TRC) was formed in FY91. For greater community involvement, the TRC was converted to a Restoration Advisory Board (RAB) in September 1994. A Community Relations Plan (CRP) was developed in FY91. The Administrative Record and Information Repository were established in FY91 and are available for public viewing.

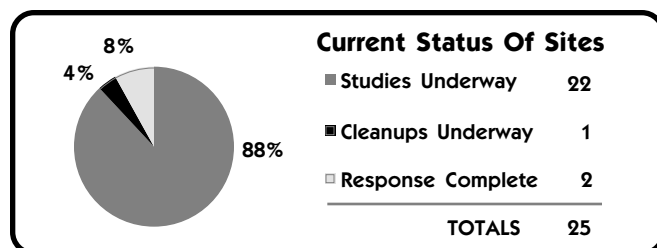
Work for the Navy's Installation Restoration Program (IRP) got underway at Cecil Field NAS in 1984. The Initial Assessment Study (IAS) identified 18 CERCLA sites. Since that time, an additional five Underground Storage Tank (UST) sites have been added to the program and one RCRA Corrective Action site (SWMU 1) was added in FY88. A Site Inspection

(SI) was completed for all 18 CERCLA sites in 1988. The Remedial Investigation and Feasibility Study (RI/FS) phase for the CERCLA sites started in FY93 for two sites and should be complete for all sites in FY96. The Remedial Design (RD) phase began in FY95 and will be complete for all 16 CERCLA sites in FY96. The Remedial Action (RA) phase will then begin and all 18 sites are scheduled for completion by the end of FY97. The single SWMU site completed its Corrective Measures Study (CMS) in FY93, completed the Corrective Measures Implementation (CMI) phase and was listed RC and had Site Closeout in February 1995. One UST site (UST 3) received RC and Site Closeout in March 1995. The other five UST sites are scheduled to complete their Corrective Action Plans (CAPs) in FY96 and complete the Implementation (IMP) phase by the end of 1997.

In order to conduct the cleanup in an orderly manner, the 12 potential sources of contamination (PSC) sites at Cecil Field NAS, identified during the RI/FS, have been divided into Operable Units (OUs) based on the types of wastes disposed or typical profile of suspected contaminants. OU 1 sites (Sites 1 and 2) are landfills. OU 2 sites (Sites 5 and 17) are oil/sludge disposal areas. OU 3 sites (Sites 7 and 8) are fire training areas. OU 4 site (Site 10) is a rubble disposal area. OU 5 sites (Sites 14 and 15) are ordnance disposal areas. OU 6 site (Site 11) is a pesticide disposal area. OU 7 site (Site 16) is an Aircraft Intermediate Maintenance Depot (AIMD) seepage pit. OU 8 site (Site 3) is an oil/sludge disposal area.

Several major successes in the cleanup program at Cecil Field have taken place. Risk reduction has been accomplished by source and soil removal at Sites 5, 11, 16 and 17. Risk reduction at Sites 1 and 2 was accomplished by installation of fencing around contaminated areas. Innovative technologies are being used where appropriate. Intrinsic bioremediation of groundwater for petroleum products, the organic solvents TCE and methyl chloride is being used at Site 17 (Oil/sludge disposal pit southwest). Bioremediation of soil for petroleum hydrocarbons and low-levels of the chemical additive PCB at Site 5 (Oil disposal area northwest) has been started. Two Records of Decision (RODs) were signed in FY95 which cover Sites 1, 2, 5 and 17.

In July 1993, the Base Realignment and Closure (BRAC) Commission recommended the closure of Cecil Field NAS and relocation of its aircraft, dedicated personnel, and equipment to Marine Corps Air Station (MCAS) Cherry Point, North Carolina; NAS Oceana, Virginia; and MCAS Beaufort, South Carolina. The 1995 Base Realignment and Closure (BRAC) Commission redirected the relocation to include NAS Jacksonville Florida and NAS Atlanta, Georgia.



CECIL FIELD NAS RELEVANT ISSUES

ENVIRONMENTAL RISK



HYDROGEOLOGY - There are three aquifers of concern at Cecil Field NAS: the surficial, the shallow rock and the deepest, Floridan aquifers. The unconfined surficial aquifer occurs at or near the surface and is primarily recharged by local rainfall. Contaminants easily enter the surficial aquifer due to its close proximity to the surface and the permeability of the sandy soil common in the area. Contamination can migrate downward into the shallow rock aquifer which supplies domestic water to outlying areas. Migration by surface water is also a potential pathway since there are numerous ditches and creeks throughout the installation. The major receiving waters include Lake Fretwell, Rowell Creek, and Sal Taylor Creek.

Eight sites have plumes of contamination into the upper aquifer, but drinking water wells at the NAS do not tap the surficial aquifer, therefore direct impact to water sources is not anticipated. The presence of confining clay sediments and artesian conditions impedes downward migration from the surficial aquifer to the shallow rock aquifer. Cecil Field NAS and the majority of the surrounding areas receive their potable water from a deep aquifer which is protected by an extensive confining layer.



NATURAL RESOURCES - Aquatic organisms, in the receiving waters of surface and groundwater migrating from Cecil Field NAS, and animals which rely on these areas for feeding and water are the primary, potential receptors. These receiving waters are classified by the Florida Department of Environmental Regulation as Class III Water - Recreation, Propagation and Management of Fish and Wildlife. Base personnel who fish Lake Fretwell are also potential receptors.



RISK - In FY95, Baseline Human Health and Ecological Risk Assessments were completed, following EPA guidance, for CERCLA sites, at OUs 1 and 2; started at OUs 7 and 8 and are planned for OUs 3, 4, 5 and 6. The Baseline Human Health and Ecological Risk Assessments for OUs 1 and 2 determined that there is no human health risk, only micro-organisms are at risk.

The Navy completed a Relative Risk Ranking for the installation in FY95. Fourteen of the 25 sites at Cecil Field received a "High" risk ranking. Two sites had three media types ranked high and four other sites had high ranking for two types of media. Though the majority of the high ranked sites were landfills and disposal sites, there was also high ranked contamination found at a firing range and fire fighting training sites. Groundwater was the media of greatest concern, eight of the 14 high ranked sites were found to have current or the potential for contaminated groundwater. Two other media types received several high ranks; sediment had a high score at seven sites and surface water ranked high at six sites. Both these media had either evidence of or potential for a path to human receptors. As a media, soil received a high rank at only a single site, Site 4 (Grease pits). Grease, fuels, solvents and paints had seeped into the soil between the 1950's and 1983, when this site was used for disposal.

The Agency for Toxic Substance and Disease Register (ATSDR) assesses National Priorities List (NPL) installations. Due to its NPL listing ATSDR will do a Public Health Assessment.



RESTORATION PROJECTS - The restoration of several sites (Sites 5 and 17) is being accomplished by clearing them and allowing them to naturally replant themselves.

REGULATORY ISSUES



NATIONAL PRIORITIES LIST - Cecil Field NAS was placed on the National Priorities List (NPL) in December of 1989 with an HRS score of 31.99. Placement on the list was driven by the discovery of contamination of the aquifers; specifically the organic solvent TCE and the resulting plume that was found in the groundwater at Site 16. There was also concern about lead contamination at Site 15, an ordnance disposal area and shooting range site.



LEGAL AGREEMENTS - A Federal Facility Agreement (FFA) was signed in FY91 between the Navy, EPA, and the Florida Department of Environmental Protection (FDEP). The FFA identified potential sources of contamination requiring Remedial Investigation and Feasibility Study (RI/FS) activities and further screening. Based on the FFA, a Site Management Plan (SMP) was implemented in FY92 and is updated annually.

A RCRA Hazardous and Solid Waste Amendments (HSWA) permit was issued in October 1987.



PARTNERING - The installation has encouraged partnerships with federal and state regulatory agencies and promoted public involvement by coordinating with local regulatory agencies, natural resource trustees, and other interested agencies and organizations. Because of this partnering team approach to solving problems, the amount of time required for the installation's sites to proceed from the investigation phase to the remedial process has been reduced. An example is that work plans are being put in place more quickly because agreements are reached on what is to go into the plans before they are written so that they can be accepted and implemented without delay for reviews and rewrites.

COMMUNITY INVOLVEMENT



RESTORATION ADVISORY BOARD - In an effort to keep the community informed of the cleanup progress at the installation, a Technical Review Committee (TRC) was formed in FY91. For greater community involvement, the TRC was converted to a Restoration Advisory Board (RAB) in September 1994. There are 26 community members in the RAB. Meetings are held on a monthly basis. The public has a positive view of the NAS and shows little concern over potential contamination.



COMMUNITY RELATIONS PLAN - A Community Relations Plan (CRP) was developed in FY91.



INFORMATION REPOSITORY - The Administrative Record and Information Repository were established in FY91. They are available to the public at the West Connett Library in Jacksonville, Florida.

BASE REALIGNMENT AND CLOSURE



BRAC - In July 1993, the Base Realignment and Closure (BRAC) Commission recommended the closure of Cecil Field NAS and relocation of its aircraft, dedicated personnel, and equipment to MCAS Cherry Point, North Carolina; NAS Oceana, Virginia; and MCAS Beaufort, South Carolina. The 1995 BRAC Commission redirected the relocation to include NAS Jacksonville Florida and NAS Atlanta, Georgia.



BRAC CLEANUP TEAM - The installation's BRAC Cleanup Team (BCT), formed in FY94, is made up of a Navy representative, an EPA Region IV member and a representative from FDEP. The BCT secured the assistance of a Remedial Action Contractor for further investigation and cleanup activities. The installation also completed the draft Environmental Baseline Survey (EBS) in FY94.



DOCUMENTS - As a result of BRAC, NAS Cecil Field completed a draft EBS in January 1994 and completed a BRAC Cleanup Plan in March 1994. The final EBS was submitted in November 1994.

Environmental Conditions of Property Classification

1	2	3	4	5	6	7
18,700 acres	20 acres	20 acres	0 acres	20 acres	101 acres	1,311 acres

CECIL FIELD NAS



REUSE - During FY95, the installation finalized the EBS and a BRAC Land Reuse Plan. The NAS is to be converted to a small commercial airport, community use parks and an industrial facility. Potential lessors or buyers that fit the re-use plan are now being sought. No parcels have been transferred or leased at this time. Regulatory concurrence for the Community Environmental Response Facilitation Act (CERFA) clean acreage was obtained.



FAST-TRACK INITIATIVES - As a BRAC installation, Cecil Field NAS will make use of "Fast-Track Initiatives": (1) compress schedule; (2) improve communications; (3) eliminate redundant actions; (4) increase concurrent activities; (5) maximize direct-push technology; (6) partnering with regulatory agencies and contractors; (7) database by facility or parcel.

HISTORICAL PROGRESS

FY85

Sites 1-12 and 14-19 - The Initial Assessment Study (IAS), equivalent to a Preliminary Assessment (PA), was completed in July 1985 and identified 18 potentially contaminated sites.

UST 5 - The Initial Site Characterization (ISC), equivalent to a PA for RCRA Underground Storage Tank (UST) sites, was completed.

FY88

Sites 1-12 and 14-19 - A Site Inspection (SI), completed in March 1988, addressed all 18 CERCLA sites.

SWMU 1 - A RCRA Facility Assessment (RFA), equivalent to a PA for RCRA sites, was completed for SWMU 1.

FY91

Site 13/UST 5 - After initial testing at Site 13 indicated only petroleum contamination, the site was transferred to the UST program, as UST 5, for remediation.

FY92

USTs 1 and 6 - An ISC was completed for two RCRA UST sites.

FY93

Sites 1, 2, 5, 11 and 17 - Remedial Investigation/Feasibility Study (RI/FS) activities were started at five CERCLA sites.

Sites 5, 11, 16 and 17 - Cecil Field NAS and the regulators agreed to initiate fast track Interim Remedial Actions (IRAs) at four sites, work to be completed within roughly a one year time frame. In order to meet the fast deadline, a focused Feasibility Study (FS) was completed and Interim Records of Decision (IRODs) were prepared.

SWMU 1 - A Corrective Measures Study (CMS), completed in March 1993 recommended the removal of the tank.

UST 3 - An ISC was completed.

UST 5 - An investigation was completed in September 1993.

UST 6 - A Corrective Action Plan (CAP) was completed.

FY94

Sites 3 and 14-16 - RI/FS activities were started at four CERCLA sites.

Site 11 - An IROD for removal of pesticide drums and contaminated soil was signed in September 1994.

Site 16 - An IROD was signed in May 1994 and the IRA was completed in July 1994. The IRA called for the removal of a RCRA-permitted storage tank as well as the contaminated soil.

SWMU 1 - Implementation of the CMS was completed in May 1994 with the removal of the tank; No Further Action (NFA) is expected.

USTs 2 and 3 - Interim Corrective Measures were completed. Tank and soil removal completed at UST 2. CAP phase, including tank removals, and Implementation phase (IMP) completed at UST 3.

UST 6 - IMP phase was started. Approximately 25% of the installation's USTs were also removed.

PROGRESS DURING FISCAL YEAR 1995

FY95

All Sites - Baseline Ecological Risk Assessments were completed at Operable Units (OUs) 1 and 2; started at OUs 7 and 8 and are planned for OUs 3, 4, 5 and 6. Two-hundred fifty "gray sites" (potential sites) requiring further investigation were identified during the Environmental Baseline Survey (EBS).

Sites 1 and 2 - RI/FS activities were completed.

Sites 4, 6-10, 12, 18 and 19 - RI/FS activities were started at nine CERCLA sites.

Site 11 - In response to an IROD, an IRA was started; numerous five-gallon pesticide drums (containing the pesticide Nemagon) were removed and the soil surrounding the drums was removed.

Sites 5 and 17 - The IROD was completed and the final ROD was signed

in September 1995. At Site 17, the IROD specified that soils contaminated with petroleum products and the organic solvent TCE be thermally treated and placed back in the excavation, eliminating need for removal and off-site disposal; the ROD specified intrinsic bio-remediation be used for the contaminated groundwater. At Site 5, the contaminated soil will be treated via ex-situ bio-remediation and the groundwater will be remediated via air sparging. This cleanup action involved an IRA for each site.

SWMU 1 - Corrective Measures Implementation (CMI) completed and site listed as Response Complete (RC).

UST 2 - ISC completed.

UST 1 - A CAP was completed.

UST 3 - Listed as RC and received Site Closeout in March 1995.

PLANS FOR FISCAL YEARS 1996 AND 1997

FY96

All Sites - The relocation of aircraft, dedicated personnel, and equipment from Cecil Field to NAS Atlanta will begin. Final relocation to NAS Oceana, NAS Jacksonville and MCAS Beaufort will be completed by the end of FY98.

Sites 1-5, 7-8, 10 and 14-19 - RI/FS and RD activities will be complete at seven CERCLA sites, Sites 3, 4, 5, 7, 14, 17 and 18 and Remedial Action (RA) phase will start for 11 sites, Sites 1, 2, 4, 5, 7, 8, 10, 15, 16, 18 and 19.

Sites 1 and 2 - The RA phase will be completed for two CERCLA sites.

Following the completion of RA phases, the two sites will be listed as RC.

UST 1 - The IMP phase will be completed.

USTs 2, 4 and 5 - The CAP phase will be completed and IMP phase will be started.

FY97

Sites 3, 10, 16 and 17 - The RA phase will be completed for four CERCLA sites. Following the completion of RA phases, the four sites will be listed as RC.

CECIL FIELD NAS PROGRESS AND PLANS

CERCLA	FY94 and before	FY95	FY96	FY97	FY98	FY99	FY00	FY01 and after
PA	18							
SI	18							
RI/FS		2	16					
RD			16					
RA			12	6				
IRA	1(2)		8(10)	2(3)				
RC			8	3				7
Cumulative Response Complete			44%	61%				100%
RCRA CA	FY94 and before	FY95	FY96	FY97	FY98	FY99	FY00	FY01 and after
RFA	1							
RFI								
CMS	1							
DES								
CMI		1						
IRA								
RC		1						
Cumulative Response Complete		100%						
UST	FY94 and before	FY95	FY96	FY97	FY98	FY99	FY00	FY01 and after
ISC	4	1	1					
INV	1							
CAP	2	1	3					
DES								
IMP	1		1	1	3			
IRA	2(3)		1(2)					
RC		1		1	2			2
Cumulative Response Complete		17%		33%	67%			100%